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Minimum Altitude of Kamchatka Meteorite

1. An analysis of the data available on the reported meteorite (on 31 January) over Ostrov Karaginskiy (an island 70 miles long off the eastern coast of Kamchatka) indicates that the meteorite could be seen from Shchapino under the conditions described below.
2. If, at the time of observation, the meteorite was west of the southern tip of the island and the observer at Shchapino was looking directly down the Kamchatka River Valley (see line of sight OA on attached sketch), the meteorite would have to be more than 10 miles high in order to be seen. If the meteorite was directly over or to the east of the southern tip of the island and the observer had to look over the tops of the intervening volcanoes that are located along the eastern side of the valley (lines OB and OC, respectively), the meteorite would have to be above 17.5 miles.
3. If the meteorite was west of the northern tip of the island and the observer was looking directly down the valley (line OA), the meteorite would have to be above 16 miles. If the meteorite was directly over or to the east of the northern tip of the island and the observer had to look over the volcanoes (lines OB and OC), the meteorite would have to be above 25 miles.
4. Since the exact location of the meteorite over Ostrov Karaginskiy cannot be determined at this time, the preceding figures are given to establish the possible range of altitudes at which the meteorite could be

seen. If it were at an intermediate point along the island, the altitude of the meteorite would have to lie somewhere between the two sets of figures.

5. Although Moscow standard time is 2 hours faster than Greenwich standard time, the entire USSR operates on perpetual daylight saving time. Consequently, the actual time difference amounts to 3 hours.

